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Petrus Henricus Cornelius Bentvelsen

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EXAMINER

TRUONG, THANHNGA B

ART UNIT

PAPER NUMBER

2438

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/078,975	<b>Applicant(s)</b> BENTVELSEN, PETRUS HENRICUS CORNELIUS	
	<b>Examiner</b> THANHNGA B. TRUONG	<b>Art Unit</b> 2438	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-10 and 16-26 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 6-8, 10, 19 is/are rejected.
- 7) ☒ Claim(s) 3-5, 9, 16-18 and 20-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This action is responsive to the communication filed on July 13, 2009. Claims 2-10 and 16-26 are pending. Claims 1 and 11-15 are cancelled. At this time, claims 2-10 and 16-26 are still rejected.

In preparing for this office action, Examiner has pointed out particular references contained in the prior art(s) of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claims, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully each reference in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

***Response to Arguments***

2. Examiner thanks applicant for recognizing the honest typographical mistake was made in the previous office action about the prior Sauer et al (US 5,574,407).

Applicant's arguments filed July 13, 2009 have been fully considered but they are not persuasive. However, upon further consideration, a new ground(s) of rejection is made in lieu of 101 issues.

Applicant has argued that Chiasson does not disclose or remotely suggest inserting any local phase errors in the bitstream of any primary signal to distort the bitstream of the primary signal.

Examiner respectfully disagrees with the applicant and still maintains that the combination of teach between Nagano and Chiasson teaches the claimed subject matter. Although Nagano is silent on the capability of showing wherein distorting the bitstream of the primary signal comprises inserting local phase errors in the bitstream of the primary signal, Chiasson teaches this limitation in column 7, lines 41-46 of Chiasson, wherein the data bit

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stream 110 is input to an error control mechanism 112 which protects the data bit stream 110 from transmission errors by convolutionally encoding and interleaving the data bit stream. This protected **data bit stream 110 subsequently has a predetermined synchronization sequence inserted into the error protected data bit stream (emphasis added)** such that subsequent maximum ratio diversity combining and maximum-likelihood decoding of the transmitted signal by a hard-limiting receiver 104 is enhanced.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, according to the above explanation, the combination of teaching between Nagano and Chiasson is efficient and proper.

The fact that Examiner may not have specifically responded to any particular arguments made by Applicant and Applicant's Representative, should not be construed as indicating Examiner's agreement therewith.

For the above reasons, it is believed that the rejections should be sustained.

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 2-10 and 16-26 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As to independent claims 2 and 8, while the claim recites a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. § 101

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must (1) be tied to a particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See *page 10 of In Re Bilski 88 USPQ2d 1385*. Specifically, claim 14 recites “the tag authentication method comprising: classifying information... finding a group... finding a tag’s secret information”, but nowhere in the claim does it state what particular apparatus does (or is positively tied with) these series of steps. Because the instant claim is neither positively tied to a particular machine that accomplishes the claimed method steps nor transforms underlying subject matter of the claim to a different state or thing, the claim therefore does not qualify as a statutory process under 35 U.S.C. § 101.

As to dependent claims 3-7, 9-10 and 16-26, they are rejected under 35 U.S.C. § 101 for depending upon the non-statutory subject matter recited by independent claims 2 and 8.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 6-8, 10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano (US 5,570,339), and further in view of Chiasson et al (US 5,546,429 A).

a. *Referring to claim 2:*

i. Nagano teaches a method of embedding a secondary signal (inputted signal frequency signal, column 11, lines 61-67 of Nagano) of a secondary channel (interpreted as the channel which shows the flow of the key information inputted to the frequency generator 23 to the photomodulator 62, at Figure 15 of Nagano) in the bitstream of a primary signal (waveform string, column 11, lines 51-60 of Nagano) of a primary channel comprising:

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(1) distorting the bitstream of the primary signal by a particular distortion **(in the photomodulator 62, the inputted waveform string and the inputted signal frequency signal are mixed and modulated a driving current of the semiconductor laser incorporated in the photomodulator 62, at column 11, line 66 through column 12, line 2 of Nagano);** and

(2) outputting the bitstream of the primary signal having the distorted bitstream **(the information signal is recorded in the rewritable optical disc 64, at Figure 15, and column 12, lines 2-8 of Nagano),**

(3) wherein the secondary signal is represented by the particular distortion **(Figure 23 generates a signal of single frequency according to the key information, at column 11, lines 61-65 of Nagano).**

ii. Although Nagano taught the claimed subject matter, Nagano is silent on the capability of showing wherein distorting the bitstream of the primary signal comprises inserting local phase errors in the bitstream of the primary signal. On the other hand, Chiasson teaches this limitation in column 7, lines 41-46 of Chiasson.

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Nagano with the teaching of Chiasson to improve the technique of embedding.

iv. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Nagano with the teaching of Chiasson to enhance the phase lock loop with error consistency detector.

b. Referring to claim 6:

i. Although Nagano and Chiasson teach the claimed subject matter, Nagano further teaches:

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(1) wherein the bitstream of the primary signal of the primary channel consists of a stream of bits **(which is inherently taught by Nagano as Nagano describes converting a sound signal into digital data using A/D converter, at column 11, lines 51-53 of Nagano)** for being recorded on an optical data carrier **(optical disc 64, at Figure 15 of Nagano)**, in the form of lands and marks **(information pits, at Figure 15 of Nagano)**.

c. Referring to claim 7:

i. Although Nagano and Chiasson teach the claimed subject matter, Nagano further teaches:

(1) wherein the secondary signal comprises a copy protection key or a digital right **(key information, at column 11, lines 61-65, and abstract of Nagano)**.

d. Referring to claim 8:

i. This claim consists an apparatus for embedding a secondary signal of a secondary channel in the bitstream of a primary signal of a primary channel to implement claim 1 and is rejected with the same rationale applied against claim 1 above.

e. Referring to claim 10:

i. This claim consists an apparatus for recording a primary signal of a primary channel on a record carrier comprising an apparatus for embedding a secondary signal of a secondary channel in the bitstream of a primary signal of a primary channel according to claim 8. Therefore it is rejected with the same rationale applied against claim 8 above.

f. Referring to claim 19:

i. This claim has limitations that is similar to those of claim 6, thus it is rejected with the same rationale applied against claim 6 above.

***Allowable Subject Matter***

5. Claims 3-5, 9, 16-18, and 20-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached at 571-272-3787. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

/Thanhnga B. Truong/

Primary Examiner, Art Unit 2438

TBT

November 20, 2009